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1 **The Changing Geography of Interprovincial Migration in China:**
2 **History and New Trends**

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17

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1 The Changing Geography of Interprovincial Migration in China: 2 History and New Trends

3 Abstract: This paper elucidates how the geography of interprovincial migration
4 in China has evolved with the country's structural changes over the past 35
5 years and explores how this geography has developed in the past decade. In
6 synthesizing existing literature, we demonstrate that the coast-inland migration
7 discrepancy emerged in the late 1980s when migration control was relaxed and
8 a coastal development strategy was adopted, reinforced in the 1990s when
9 globalization, marketization, and decentralization unfolded and interprovincial
10 economic disparities increased, and stabilized in the 2000s when the growth of
11 interprovincial economic disparities came to a halt with the country's shift to a
12 coordinated regional development strategy. Using 2020 Census data, the
13 geography is revealed to have become less skewed between 2010 and 2020,
14 driven primarily by two groups of provinces. One group includes five southeast
15 coastal provinces and two coastal municipalities; the other includes nine
16 southern inland provinces. The southern inland-coast migration flows, which
17 had been growing prior to 2010, have decreased between 2010 and 2020,
18 whereas counterflows have increased greatly. These emerging trends can be
19 attributed to several significant transformations in China's demography and
20 economic landscape, including the aging of a large number of first-generation
21 migrants, a declining workforce, the relocation of manufacturing industries,
22 and people's increasing emphasis on public services, the access to which are
23 often tied to the *hukou* place. Interprovincial migration in China has reached a
24 turning point in terms of geographic changes. The policies on this migration
25 and the geographical framework for analyzing it may need updating.

26 Keywords: Internal migration; geography; evolution; new trends; China

27

1 **Introduction**

2 The geography of internal migration is a recurring topic. It was discussed as early as in
3 Ravenstein's (1885) work, in which a universal population shift towards more
4 developed areas is regarded as one of the "laws of migration". It was discussed in
5 Zelinsky's (1971) classic work "the hypothesis of the mobility transition", in which the
6 changing spatial patterns of migration are linked with the process of modernization. It
7 was also discussed by Plane (1984), who suggested that non-steady-state movement
8 patterns would be formed, consolidated, and balanced by countermovement as
9 migration systems pass through periods of structural change.

10 China's contribution to this discussion is relatively insufficient compared to its
11 global significance, despite the significant efforts to reveal the geography of its internal
12 migration (Cai 1999; Cai and Wang 2003; Cao et al. 2018; Fan 2005a; Liang and White
13 1996, 1997; Shen 2020; Wei 1997). In 2020, about 117 million people in China lived
14 in a county different from their residence five years ago, whereas this number in the
15 United States was only 38 million. China's internal migration is significant in helping
16 us to rethink existing migration models, as the society in which China's migration
17 operates is structured by a household registration (*hukou* 户口) system and is
18 fundamentally different from the Western society on which the conventional models
19 were built. China could have a more substantial presence in the field of internal
20 migration than it currently does. Our study first and foremost represents a response to
21 this imperative.

22 It is now a consensus that internal migration in China has a geographically
23 concentrated distribution, varying rates across regions, and a unidirectional pattern (Cai
24 1999; Liang 2001; Wei 1997). However, there is insufficient consensus or investigation
25 regarding how this geography has evolved over the past 35 years, and how it is

1 intertwined with the changing social, economic, and institutional environment in China.
2 The existing knowledge about the historical development of this geography remains
3 largely fragmented. This study aims to fill this gap.

4 How the geography of China’s internal migration has evolved in the past decade
5 is an unanswered question. According to Plane’s (1984) theory, non-steady-state
6 movement patterns in China should have become more balanced by countermovement,
7 as these patterns have dominated the country’s migration for decades. Also, based on
8 Zelinsky’s (1971) model, migratory currents in China should have become less
9 unidirectional and more complex, as the country has been modernizing fast and has
10 arguably entered the late-transitional stage (Tan and Zhu 2021).

11 However, geographic changes in China’s internal migration may not conform
12 exactly to Plane’s and Zelinsky’s theories, as the society in which China’s migration
13 operates is structured by the *hukou* system (Chan 2018, 2001; Chan and Zhang 1999).
14 This system requires Chinese citizens to register their households as either agricultural
15 or non-agricultural (*hukou* type) and in a specific location (*hukou* place). Thus, unlike
16 Western countries, citizens in China are divided into two subsystems, leading to two
17 migration circuits with different operating processes (Chan and Wei 2019; Chan et al.,
18 1999); and access to government-funded public services is divided between the *hukou*
19 place and all other locations, leading to a distinctive push for people living outside their
20 *hukou* place to relocate there (Chen, Jin, and Prettnner 2020; Liu, Dou, and Perry 2020;
21 Zhang et al. 2020). Geographic changes in China’s internal migration are very likely to
22 be more complex than, or even fundamentally different from what traditional theories
23 suggest. This study aims to examine these changes using the latest 2020 census data.

24 The objective of this paper is twofold: to elucidate how the geography of
25 interprovincial migration in China has evolved with the country’s structural changes

1 over the past 35 years, and to explore how this geography has developed in the past
2 decade. The first objective is addressed in the next section. Then data and methodology
3 for the second objective are introduced. Changes in the geography between 2010 and
4 2020 are then examined. Conclusion is provided in the final section.

5 **Interprovincial migration in China: a skewed geography**

6 *A skewed geography emerged in the early stage of reform (late 1980s)*

7 The self-initiated interprovincial migration that has remained uninterrupted to this day
8 in China began during the 1980s. In the pre-reform era, China operated as a centrally
9 planned economy in which almost all types of resources, including human ones, were
10 mobilized exclusively by the state (Liang and White 1996). Although this economy
11 started to be reformed since the late 1970s, the reform was not implemented all at once
12 but step by step (McMillan and Naughton 1992). The first step was set in rural areas.
13 Agriculture was decollectivized which resulted in rural surplus labor, and township and
14 village enterprises (TVEs) were allowed to develop which helped absorb this labor
15 (Chan 1994; Goldstein 1990). However, the *hukou* system, which was used by the state
16 to control migration, was then yet to be reformed. For any geographic movement an
17 official approval for a corresponding change in the place of *hukou* registration was
18 required; otherwise such movement was deemed illegal and would cause the loss of
19 access to the then still state-controlled daily necessities (Chan and Zhang 1999; Mallee
20 1995).

21 The institutional obstacles to internal movement began to be lifted when the
22 reform entered the mid-1980s. As the market developed, the state's complete control
23 over the access to daily necessities was eroded; and in 1985 geographic movement away
24 from the place of *hukou* registration was allowed (Cai 1999; Chan 2001; Liang 2001;

1 [Mallee 1995; Poncet 2006](#)). Along with the removal of these obstacles, the push and
2 pull forces of migration also grew. On the pull side, economic reform spread into urban
3 areas in 1984, opening up to foreign investment was experimented in coastal areas in
4 the 1980s, and a Coastal Development Strategy was adopted in the Seventh Five-Year
5 Plan (1985-1990), all of which contributed to the rising labor demand in these places
6 ([Cai and Wang 2003; Fan 1995; Wei 1997](#)). On the push side, rural surplus labor
7 continued to grow; and after years of development, the capacity of the TVEs to absorb
8 labor decreased ([Cai 1999; Li 2004](#)). “Factors in the act of migration”, using Lee’s
9 (1966) phrase, finally came together in China in the mid-1980s, which explains why it
10 was not until 1987 that the National Bureau of Statistics of China (NBSC) started to
11 collect information on migration.

12 The five-year interprovincial migration rate, which is the share of people that
13 lived in a different province five years ago in the country’s population, almost doubled
14 between the 1987 One Percent Population Survey and the 1990 Population Census
15 (**Error! Reference source not found.**)¹ Meanwhile, employment and business
16 replaced job transfer as the most common reason for migration ([Ding 1994; Liang](#)
17 [2001](#)). As employment and business opportunities were largely concentrated in coastal
18 areas, a skewed geography of interprovincial migration emerged ([Wang 2000; Zhang](#)
19 [1990](#)). The top five destinations in 1985-1990 were all located along the coast. Of the
20 14 net migration gainers, nine were coastal provinces. The exporters were mostly inland
21 provinces, especially those neighboring coastal gainers, such as Anhui, or with large
22 populations, such as Sichuan ([Fan 1996; Shen 1999, 2012; Wei 1997](#)). For most
23 provinces, in- and out-migration were asymmetrical: those sending out large numbers
24 of migrants attracted few migrants to them, and *vice versa*, indicating a unidirectional
25 migration pattern ([Chan, Liu, and Yang 1999; Fan 2005b; He and Pooler 2002](#)).

1 Admittedly, this newly emerged migration, then often labelled as “blind migration”
2 (*mangliu* 盲流), encountered significant resistance from both the public and (some)
3 local governments; and the economic reform and the relaxation of migration control
4 were even rolled back in 1989 (Yang 2010). Nevertheless, interprovincial migration
5 still grew in this period, exhibiting a lopsided geography (Naughton 1995; Shen 2012).

6 *Geography became more skewed as more reforms set in (1990s)*

7 Economic reform was resumed in 1992 and has deepened since. Consensus on the
8 reform goal was reached, that is to develop a “socialist market economy” (Rawski 1995;
9 Sachs and Woo 2001). Several significant measures were then implemented, such as
10 the official abolishment of grain rationing, the deregulation of the labor market, and the
11 corporatization of the state sector (Bao et al. 2009; Cai and Wang 2003). Decision-
12 making powers were hugely decentralized, contributing to the rising engagement of the
13 local state in entrepreneurial activities (Wu 2017, 2020). Tariffs, trade barriers, and
14 regulations were further reduced and opened areas were extended to inland cities,
15 further connecting China with the world economy (Li 2004; Shen 2020). As this triple
16 process of marketization, decentralization, and globalization unfolded in the 1990s, the
17 country’s economy boomed, and interprovincial economic disparities widened (Wei
18 2001). The geography of China’s interprovincial migration was found to “mirror[s] the
19 increased heterogeneity in economic development among provinces” (Fan 2005a: 309).
20 It became more skewed.

21 Interprovincial migration accelerated, with its five-year rate more than tripled
22 between the 1995 One Percent Population Survey and the 2000 Population Census
23 (**Error! Reference source not found.**)² Meanwhile, income, economic development,
24 and foreign investment were found to become the most important factors shaping
25 migration (Bao et al. 2009; Fan 2005b; Shen 2012). The top destinations became more

1 concentrated in the southeast coast. The extraordinary jump of Guangdong in the share
2 of total in-migration to 34 per cent and the flip of Zhejiang, Shanghai's south
3 neighboring province, from a net exporter to the third largest net importer are cases in
4 point (Chan and Yang 2020; Chan 2012; Ding et al. 2005). Substantial out-migration
5 diffused into more remote inland provinces, such as Guizhou and Chongqing, echoing
6 what Zelinsky (1971) described as "an outward spatial-temporal propagation of higher
7 mobility" (Liu et al. 2014; Shen 2013, 2012). Migration rates diverged and in- and out-
8 migration became more asymmetrical for most provinces (Fan 2005b, 2005a). With
9 these observations, studies of China's interprovincial migration of the 1990s almost
10 always reached the conclusion that its geography had become increasingly lopsided
11 over time (Ding et al. 2005; He and Pooler 2002; Wang 2004).

12 *Stabilized level of skewedness under coordinated regional development (2000s)*

13 The rising interregional economic disparity worried the socialist state, leading to the
14 adoption of a coordinated regional development strategy. The "Western Development
15 Program" (1999), the "Northeast China Revitalization" (2003), and the "Rise of Central
16 China" (2004) were launched successively, which directed the state investment and
17 preferential policies towards less-developed areas and encouraged labor-intensive
18 industries to relocate there (Dunford and Bonschab 2013; Zhu and Wan 2012). This
19 relocation was accepted, if not actively pursued, by the more-developed coast, which
20 started to feel rising land and labor costs and to cast the eyes on the high-technology
21 sector (He and Wang 2012). Just in time, China joined the World Trade Organization.
22 The resulted dramatic inflows of foreign direct investment (FDI), in far more industries,
23 from far more regions and countries helped the coast to develop the technology-
24 intensive industries, and reshaped the geography of FDI in China from a single
25 dominant receiver of Guangdong to several major ones (Chen, Melachroinos, and

1 [Chang 2010; Smart and Hsu 2004; Wei 2002; Zhao and Zhang 2007](#)). Interprovincial
2 economic disparities stopped to rise at the turn of the century and dropped at least since
3 the mid-2000s ([Chan and Wang 2008; Fan and Sun 2008; Zhu and Wan 2012](#)). The
4 trend of China's interprovincial migration geography becoming increasingly skewed
5 has come to a halt.

6 Interprovincial migration still grew between the 2000 and 2010 census, but at a
7 slower pace (**Error! Reference source not found.**). Guangdong, Zhejiang, Shanghai,
8 Jiangsu, and Beijing, which constitute much of China's three largest mega-city regions
9 on the coast, remained the most sought-after destinations. However, their combined
10 share of total in-migration did not grow as in the previous decade but remained quite
11 stable. Within these provinces, in-migration even became less concentrated, with the
12 top recipient Guangdong losing shares whereas its close follower Zhejiang gaining
13 shares. Likewise, out-migration remained concentrated in several inland provinces; but
14 the concentration has stopped growing. Sichuan, the unmatched migration source
15 province since the 1987 bi-census, was overtaken by its close followers Anhui and
16 Henan ([Chan and Yang 2020; Chan 2012; Shen 2013; Wang, Pan, and Lu 2012](#)). The
17 divergence in migration rates came to a halt; and as shown by Liu et al. ([2014](#)),
18 migration efficiency, which measures the asymmetry between in- and out-migration,
19 remained stable. Despite the limited number of studies on the migration system of the
20 2000s, existing evidence seems enough to suggest that the geography has stopped
21 becoming more lopsided in this period.

22 <TABLE 1 HERE>

1 *Geography became less skewed amid demographic and economic changes*
2 *(2010s)?*

3 China has undergone several significant demographic changes in recent years. Firstly,
4 the working-age population has decreased since 2015, and the age dependency ratio has
5 increased since 2010 (Shi et al. 2023). Secondly, people’s emphasis on public services,
6 many of which can only be accessed in *hukou* place, has been growing, likely due to a
7 growing number of family-based migrants as China’s migration matures (Liu, Liu, and
8 Cao 2022; Su, Hua, and Liang 2019; Yu et al. 2019). These changes could potentially
9 lead to a slowdown or decline in major migration flows, as these flows are primarily
10 driven by a working-age population leaving their *hukou* places (Chan 2010b). Thirdly,
11 the post-1960s baby boomers who migrated are reaching an age where they are either
12 considered too old for their jobs or unable to continue working. Once leaving the local
13 labor market, most of them would choose to return to their places of origin, as the *hukou*
14 system has prevented them from gaining full citizenship in their destinations, not to
15 mention bringing their family members there and settling down (Chan 2012; Chan and
16 Yang 2020). This hypothesis has recently been confirmed by Yang and Chan (2023),
17 who revealed that, compared to internal migrants in other countries, those in China are
18 more likely to return to the origins when they grow older. This “retirement return
19 migration” could result in a significant growth in counterflows (Liu, Dou, and Perry
20 2020).

21 China’s economy and economic landscape have undergone significant
22 transformations since 2008. The global financial crisis of that year hit the country’s
23 export sector, which was primarily located on the coast (Chan 2010a; Liang 2010). To
24 counteract this, the state implemented a four trillion RMB stimulus package, which was
25 primarily invested in infrastructure projects in less-developed inland areas, leading to
26 the creation of millions of new jobs there (Chan 2010b, 2012). As these projects were

1 completed and the global economy struggled to recover, China's economic growth
2 slowed down from 2011 onwards (Lin and Zhang 2015). Faced with this deceleration,
3 as well as the problems of overcapacity, pollution, and inequality, the state re-oriented
4 its economic policies. For the past decade, efforts have been made to shift the economy
5 away from exports and towards domestic consumption. Although this shift is far from
6 being completed, it arguably has resulted in more job opportunities in inland areas
7 compared to the past, despite the relatively low wages of these jobs (Li, Wu, and Xiao
8 2020). Efforts have also been made to transform the economy, particularly on the coast,
9 into a low-carbon one and to facilitate the relocation of manufacturing industries, where
10 the majority of migrants were employed, to inland areas. These changes could
11 potentially lead to a reduced number of people moving coastward and a growing
12 number of migrant workers returning to inland areas.

13 With the above structural changes, the geography of China's interprovincial
14 migration may have become less skewed in the 2010s. Although in-migration may still
15 be concentrated in coastal areas and out-migration may still be concentrated in inland
16 areas, the concentration of both may not be as pronounced as before. Although
17 migration rates may still vary among provinces, the degree of variation may not be as
18 substantial as before. Although the inland-coast direction of migration may remain
19 dominant, its dominance may not be as strong as before. In fact, a few recent studies
20 have predicted a potential turning point in China's interprovincial migration, as the
21 growth of this migration was found to come to a halt in 2010-2015 and the dominance
22 of unidirectional flows was found to show signs of weakening (Chan and Yang 2020).
23 The question of whether this geography has become less skewed in the 2010s can now
24 be answered with the release of the 2020 Census data.

1 **Data and methodology**

2 The study uses the data from the 2010 and 2020 China Population Censuses. Both
3 censuses provide the information on place of birth, place of *hukou* registration, and
4 place of usual residence five years ago. Of them, place of usual residence five years ago
5 is used to measure migration here, as our interest is in migration flows of the 2010s.
6 This choice also allows us to speak to the literature on internal migration, which
7 typically measures migration by comparing the place of residence at the beginning and
8 end of a five-year period ([Bell et al. 2015](#); [Fan 2005a](#)).

9 Given its continuity and consistency, census data is particularly useful to trace
10 the long-term trajectory of internal migration in China and to set the period in study
11 against this trajectory. Questions on migration were first asked in the 1987 bi-census
12 and have since been included in each subsequent decennial census and bi-census.
13 Initially, the question was phrased to ask whether an individual had changed the place
14 of usual residence within the past five years. However, since the 1990 census, the
15 question has consistently asked whether the current place of usual residence differs
16 from that of five years ago. Moreover, the census is the most useful source of
17 information about China's population. The undercount rate is extremely low, at 0.12
18 per cent in 2010 and 0.05 per cent in 2020 ([National Bureau of Statistics of China 2011](#),
19 [2021](#)). Admittedly, since 2000 the information on migration has been collected on a 10
20 per cent sample using a residence-based systematic sampling method, which may result
21 in an underrepresentation of migrants due to their lack of a fixed address of residence.
22 Despite this limitation, the census nevertheless remains the most useful data source for
23 studying five-year migration patterns in China and the primary and preferred data
24 source for most studies on this topic ([Cai and Wang 2003](#); [Chan 2001](#); [Shen 2013](#),
25 [2020](#)).

1 Our focus is on interprovincial migration, and the provincial-level units
2 (thereafter provinces) of mainland China are adopted as the areal framework (**Error!**
3 **Reference source not found.**). In 2020, 55 million persons, or 3.9 per cent of those
4 aged five or above, lived in a province different from that five years ago, dropping from
5 58 million and 4.6 per cent in 2010. This drop is unprecedented, as interprovincial
6 migration in China, bar a short interruption due to the 1989 turmoil, had always been
7 on an upward trend since records began in 1987 (**Error! Reference source not found.**).
8 What changes have occurred in the geography of interprovincial migration in this first
9 decade of decline? The rest of the paper is devoted to answering this question.

10 <FIGURE 1 HERE>

11 <FIGURE 2 HERE>

12 **The geography of interprovincial migration in China: new trends**

13 *Continued patterns*

14 Interprovincial migration in 2015-2020 showed a similar skewed pattern as a decade
15 ago. At the receiving end, four southern coastal provinces of Guangdong, Zhejiang,
16 Jiangsu and Shanghai, and the capital Beijing, have remained the most sought-after
17 destinations, a record that can be traced back to the 2000 census (**Error! Reference**
18 **source not found.A and B, Error! Reference source not found.A**). Guangdong, with
19 9.4 million in-migrants between 2015 and 2020, ranked first, a position that it has held
20 since the 1990 census. At the sending end, the inland provinces of Henan, Anhui, and
21 Sichuan continued to have the largest scale of out-migration. Of them, Henan, having
22 overtaken Sichuan in the 2000s, has surpassed Anhui as the largest interprovincial
23 migration source province (**Error! Reference source not found.C and D, Error!**
24 **Reference source not found.B**). On balance, the southeast coast stretching from

1 Jiangsu to Guangdong, together with two coastal municipalities Beijing and Tianjin,
2 remained the areas of marked population gains through migration, whereas all the net
3 losers in the 2000s, which are heavily concentrated in the southern inland, continued to
4 lose population through it (**Error! Reference source not found.**E and F). Although
5 there were some changes, such as Liaoning, Inner Mongolia, and Qinghai shifting from
6 net gainers to losers, these changes were relatively small. The geography of
7 interprovincial migration in China has remained skewed, with few significant changes
8 in the pattern.

9 <FIGURE 3 HERE>

10 *Less skewed*

11 Interprovincial migration in 2015-2020 was less geographically skewed than it was a
12 decade ago. In the 2010s, both in- and out-migration have become more evenly
13 distributed across provinces, which is evidenced by the less curvilinear Lorenz curves
14 in **Error! Reference source not found.**A and B. At the receiving end, this change is
15 primarily due to an unprecedented drop in the concentration of in-flows to the five well-
16 established top destinations. Their combined share has dropped by 15 percentage
17 points, from 65 per cent in 2005-2010 to 50 per cent in 2015-2020. At the sending end,
18 provinces have in general become more similar in terms of the size of out-migration,
19 although the specific demographics of the outflows may differ significantly. Thus,
20 while the top five destinations are still powerful magnets to migrants, their advantage
21 over other provinces in attracting migrants has dropped. While provinces still differ
22 greatly in terms of the ability to push people out, this disparity has decreased over the
23 past decade. Interprovincial migration has become less geographically concentrated as
24 a result.

1 <FIGURE 4 HERE>

2 Given the impact of population size on migrants moving in and out of provinces,
3 migration rates, calculated as the ratio of in- and out-migration to the mid-period
4 population of an area, have gained widespread popularity as a measure to describe the
5 geography of interprovincial migration (Fan 2005b; Shen 2012, 2013). Results based
6 on this measure reinforce the finding that this geography in China has become less
7 skewed, as migration rates have become less varied among provinces in the 2010s. This
8 decline in geographic variation can be seen in **Error! Reference source not found.C**
9 and D, which utilize the Salter graph to display the distributions of in- and out-migration
10 rates (Monfort 2008). Specifically, provinces are ranked along the horizontal axis by
11 their migration rates in the period 2005-2010, their rates in this period and the
12 subsequent period 2015-2020 are shown on the vertical axis, and those with significant
13 changes are labelled. A curve that links the 2015-2020 provincial migration rates in
14 non-decreasing order is provided, with its deviation from horizontality indicating the
15 overall geographic variation. Coefficient of variance (CV), a summary measure of
16 variation, is also provided.

17 In-migration rate remained highest in Shanghai (14.6%) and lowest in Henan
18 (0.9%), but over the past decade the gap has narrowed. Likewise, the highest out-
19 migration rate fell from 11.1% (Anhui) to 7.1% (Guizhou), whereas the lowest rose
20 from 1.5% (Xinjiang) to 1.9% (Shandong). Not limited to the extremes, the narrowing
21 gap has occurred across the spectrum. As shown in the Salter graph, the horizontality
22 of both in and out-migration series has increased between 2010 and 2020; and the CV
23 has nearly halved. The decline in geographic variation in the in-migration rate is mostly
24 due to a significant drop in this rate among the top seven provinces, all on the coast
25 (**Error! Reference source not found.B**). The decline in geographic variation in the

1 out-migration rate is due to a marked drop in this rate among the top nine provinces,
2 which cover a continuous inland area, as well as a significant rise in this rate among
3 bottom provinces, such as Beijing and Shanghai. These results suggest that provinces
4 have converged in terms of their (in)attractiveness to migration over the past decade,
5 which could be attributed to changes in the characteristics of migrating individuals
6 and/or places. Investigating the specific contributions of these factors goes beyond the
7 scope of this study. It presents a potential avenue for future research.

8 Interprovincial migration in China has become less unidirectional. Migration
9 efficiency, which is computed as the ratio of net migration to total in- and out-migration
10 and thus measures the unidirectionality of migration to and from an area, has declined
11 in absolute value in all but four provinces and by a significant margin (**Error!**
12 **Reference source not found.A**). The prevalent and significant decline can also be seen
13 from **Error! Reference source not found.B**, which shows that most provinces fall
14 much closer to the dashed line of perfect bi-directionality in 2015-2020 than in 2005-
15 2010. Consequently, the overall migration efficiency has seen an unprecedented drop,
16 from 62 per cent in the period of 2005-2010 to 35 per cent in that of 2015-2020. Two
17 groups of provinces, with two types of changes, have contributed the most to this
18 process. On the one hand, provinces that had a distinctively high in-migration rate and
19 a low out-migration rate in 2005-2010 have drawn in far fewer people in the following
20 decade. On the other hand, provinces that had a distinctively high out-migration rate
21 and a low in-migration rate have recorded a marked fall in out-migration. These two
22 groups, which account for half of the total provinces in China, no longer act as either
23 importers or exporters of migration. They now act as both importers and exporters
24 instead.

25 <FIGURE 5 HERE>

1 *Contributors and processes*

2 The above results can be summarized as follows: while the geography of China's
3 interprovincial migration is still skewed, it has become less so over the past decade, a
4 new trend that is primarily driven by two groups of provinces. The first group comprises
5 seven coastal provinces, including Beijing, Tianjin, Jiangsu, Shanghai, Zhejiang,
6 Fujian, and Guangdong (**Error! Reference source not found.A**). Being the
7 forerunners in China's economic development, they have long been the most sought-
8 after destinations for migration. Between 2005 and 2010, in-migration was heavily
9 concentrated in there and in-migration rate there was extremely high, whereas out-
10 migration from there and out-migration rate there was very limited (**Error! Reference**
11 **source not found.B** and C). The second group comprises nine southern inland
12 provinces, including Anhui, Jiangxi, Henan, Hubei, Hunan, Chongqing, Sichuan,
13 Guizhou, and Guanxi. They constitute a vast continuous area next to the coast and have
14 long been the greatest migration exporters given this proximity and their large
15 populations. Between 2005 and 2010, out-migration was highly concentrated in these
16 provinces and out-migration rate there was very high, whereas in-migration to there and
17 in-migration rate there was extremely low. The contrasting migration patterns between
18 these two groups explain the skewed geography of interprovincial migration in China.

19 While these two groups continue to dominate interprovincial migration in
20 China, their migration patterns have become less polarizing over the past decade
21 (**Error! Reference source not found.B** and C). Although the seven coastal provinces
22 remain the most sought-after destinations, their share of in-migration and in-migration
23 rate have decreased, while their out-migration figures have increased. Although the nine
24 southern inland provinces remain the largest migration exporters, their share of out-
25 migration and out-migration rate have dropped, while their in-migration figures have

1 risen. The provinces that previously received the most migrants now receive fewer and
2 send out more, whereas the largest senders are sending out fewer migrants and receiving
3 more. Thus, while the geography of interprovincial migration remains skewed, it has
4 become less so over the past decade.

5 The decrease in the number of migrants moving to the coast and the decrease in
6 the number of migrants moving from the southern inland are two sides of the same coin.
7 Between the two censuses, the coastal group received 10.8 million fewer migrants, and
8 the southern inland group sent out 10.1 million fewer. Both figures are smaller than the
9 11.4 million decrease in migrants moving from the southern inland to the coast, a
10 migration flow that has been and continues to be dominant in China. In fact, of all the
11 inter- and intra-regional migration flows, the three major interregional ones have
12 experienced the least growth (**Error! Reference source not found.**D, E, and F). This
13 shared trend aligns with our earlier hypothesis, that a declining workforce and an
14 increasing emphasis on public services, many of which can only be accessed in *hukou*
15 place, could have led to a reduced pool of labor migrants and a decreased willingness
16 of them to leave their *hukou* places, thereby slowing down major migration flows.
17 However, this hypothesis alone seems inadequate to fully account for the distinctive
18 drop in migration from the southern inland to the coast; and this suggests that a
19 narrowed gap in industrial job opportunities between the two regions may also
20 contribute to this drop.

21 The increases in out-migration from the coastal group and in-migration to the
22 southern inland group mainly arise from the upsurge in those interregional flows that
23 run counter to the traditional major migration flows. Counterflows from the coastal
24 group have increased by 4.7 million, accounting for 88 per cent of the group's out-
25 migration increase. Counterflows to the southern inland group have grown by 5.3

1 million, accounting for 82 per cent of the group's in-migration increase. All
2 counterflows have grown more than their respective major flows; and two of them have
3 grown more than any other inter- and intra-regional flows (**Error! Reference source**
4 **not found.**D, E, and F). This finding resonates with some observations indicating that
5 a large number of first-generation migrants are returning home due to challenges
6 associated with securing employment as they age, as well as the difficulties of settling
7 down in their destinations under the *hukou* system (Chan and Yang 2020; Chan 2012).
8 The disproportionate increase of counterflows into the southern inland region resonates
9 another set of observations: many migrant workers are returning to the southern inland
10 region given the recent relocation of many industrial jobs there (Liu and Zhang 2022;
11 Xu, Liu, and Liu 2017). As both the aging of the population and the process of industrial
12 transfer are likely to continue, the trend of the geography of interprovincial migration
13 in China becoming less skewed is likely to be an enduring, long-term phenomenon.

14 <FIGURE 6 HERE>

15 **Conclusion**

16 This paper represents an attempt to elucidate how the geography of China's
17 interprovincial migration has evolved with the country's structural changes over the
18 past 35 years, and to explore how this geography has developed in the past decade. In
19 synthesizing existing literature, we have demonstrated that the coast-inland migration
20 discrepancy emerged in the late 1980s, when migration control was relaxed, market
21 reforms and opening up were experimented in coastal areas, and a coastal development
22 strategy was adopted. This discrepancy grew larger in the 1990s, when China went
23 through a triple process of globalization, marketization, and decentralization and
24 experienced growing interprovincial economic disparities. The level of discrepancy

1 then stabilized in the 2000s. In this period, China shifted to a coordinated regional
2 development strategy, its coastal region started to see rising land and labor costs, and
3 more provinces became popular destinations for the greatly increased FDI, which
4 collectively contributed to a decline in interprovincial economic disparities.

5 Using 2020 Census data, we have revealed that a turning point has recently
6 arrived. Between 2010 and 2020, interprovincial migration in China has dropped in
7 both scale and rate, and for the first time since records began its geography has become
8 less skewed. Although in-migration is still concentrated in the southeast coast and out-
9 migration is still concentrated in the southern inland region, the concentration of both
10 has become less pronounced. Although migration rates still vary among provinces, the
11 degree of variation has become less substantial. Although the inland-coast direction of
12 migration has remained dominant, its dominance has become weaker. In less than four
13 decades, interprovincial migration in China has established an uneven pattern, and this
14 pattern has strengthened, stabilized, and then weakened. This finding aligns with the
15 prediction made by Chan and Yang (2020: 577) regarding an impending “turning point
16 in migration directions”.

17 The arrival of this turning point could be attributed to several transformations
18 in China’s demography and economic landscape. Firstly, the Chinese population,
19 including its migrant population, is ageing. The first-generation migrants are now
20 reaching an age where they are either considered too old for their jobs or unable to
21 continue working. Due to the *hukou* system, most of them have not gained full
22 citizenship in the coast, not to mention bringing their family members there and settling
23 down (Chan 2012; Chan and Yang 2020). Once leaving the local labor market, most of
24 them are likely to return inland. This phenomenon has recently been documented by
25 Yang and Chan (2023), who showed that in China migrants growing old tend to return

1 to the origins than to remain in the destinations. Meanwhile, the number of young
2 workers has dwindled due in large part to the one-child policy that was implemented
3 gradually in the 1980s, and this in turn contributes to the decline in the southern inland-
4 coast population flows, which is mainly driven by young workers. The aging migrants,
5 and the many great barriers to settlement are thus some systematic factors causing the
6 migration turning point.

7 Secondly, China's landscape of manufacturing industries has experienced a
8 notable shift toward the inland, particularly after the 2008 financial crisis and amid the
9 state's promotion of industrial relocation (Chan 2010b; Liu and Zhang 2022). This shift
10 has resulted in substantial job growth in the interior, attracting many migrants on the
11 coast to return and reducing the propensity for coastward migration (Xu, Liu, and Liu
12 2017). According to the NBSC's annual report on the monitoring survey of migrant
13 workers, the number of migrant workers in the eastern region has declined ever since
14 2018, whereas the share of migrant workers in the central and western regions has
15 surged from 26.2 per cent in 2010 to 43.8 per cent in 2020 (NBSC 2011, 2021). It
16 appears that migration flows from the coast to the southern inland encompass the return
17 of both older migrants that are no longer needed by the coast and younger ones that are
18 wanted by the coast.

19 Thirdly, although interprovincial migration in China is still jobs-driven, the
20 accessibility and quality of public services are increasingly exerting a greater influence
21 on migration decisions (Liu and Shen 2014; Su, Hua, and Liang 2019). Since many
22 public services are only accessible at the *hukou* place, people in China may have
23 become more reluctant to migrate, thus slowing down major migration flows (Xu, Liu,
24 and Liu 2017). The intricate interplay of these factors in shaping the geography of
25 interprovincial migration calls for a series of investigations spanning demographic,

1 economic, and geographic perspectives. This study, which sheds light on the emerging
2 geographic trend, serves as an invitation for the exploration of the intricate dynamics
3 that underlie this phenomenon.

4 This study, which reveals the geographic changes in China's interprovincial
5 migration, is significant to the country in two ways. Firstly, it has demonstrated that
6 interprovincial migration in China evolves fast and has entered a new era. In this era,
7 the established destinations still receive, and the established origins still send out, a
8 large number of migrants, but both numbers are no longer as large as before; and
9 interprovincial migration as a whole is not as active as before. Population policymakers
10 and practitioners should thus change the mindset of increasing in- and out-migration
11 and get prepared for this new era of interprovincial migration decline. In fact, the issue
12 of labor shortages in the coastal region would be better addressed if policymakers were
13 more aware of and better prepared for the reduced migration of low-skilled labor to the
14 region. As interprovincial migration in China is evolving rapidly, population policies
15 there should be flexible, adaptive, and forward-looking.

16 Secondly, our results highlight a south-north divide in China's interprovincial
17 migration. The south is where this migration largely occurs, whereas the north plays a
18 very limited role. This divide challenges the traditional perception that migration
19 activity in China decreases from east to west, a perception that has guided the choice
20 of the geographic framework in almost all migration studies in China, even though it
21 might have become outdated (Cao et al. 2018; Fan 2005a; Liu et al. 2014; Shen 2020;
22 Wei 1997). The emergence of this new divide re-confirms the fast pace at which the
23 geography of internal migration in China evolves. It calls for a frequent check on the
24 way of thinking about this geography. The north-south division should now at least be
25 laid along with, if not replace the east-central-west division in analyzing this geography.

1 Despite a geographic focus on China, our findings have shed light on the wider
2 discussion on internal migration. They demonstrate that while the uneven pattern of
3 internal migration may emerge, strengthen, stabilize, and then weaken, the pace at
4 which this process occurs can vary considerably. Zelinsky (1971) proposed an
5 explanation for this variation, that the transfer of information from more advanced to
6 less advanced regions enables the latter to undergo the mobility transition at a faster
7 pace. Our results reveal two additional potential factors that were not considered by
8 Zelinsky. One is the state's intervention in the country's economic landscape, to which
9 labor migration occurs as a response. In China, the shift of inland-coast migration flows
10 from growth to decline would not occur so rapidly if regional disparity in employment
11 opportunities did not shift from rise to fall so fast, which in turn would not occur without
12 the state-led development strategy. The other potential factor is the institutional
13 framework in which migration operates. In China, the decline of major flows and the
14 growth of counterflows would not be as pronounced if migrants there were free from
15 *hukou* barriers and able to access a full set of public services and settle down in their
16 destinations. Zelinsky's general thesis, which was derived based totally on a market
17 economy and with an assumption of no government intervention, should not be applied
18 to China mechanically and uncritically and could be revised by thinking of China's
19 internal migration.

1 The total number of people that have changed the place of usual residence within the past
five years is the numerator of this rate in 1987. This difference exists because migration
was measured differently between the 1987 survey and the 1990 census (see the Data
section). Also, compared to the 1987 survey, the 1990 census adopted a much longer
length of time by which one needs to live in the new destination for being defined as a
migrant. Moreover, Hainan was separated from Guangdong in 1988. Migration between
Hainan and Guangdong was thus categorized as intra-provincial in the 1987 survey but
as interprovincial in the 1990 census.

2 Chongqing was separated from Sichuan in 1997. Thus, migration between Chongqing and Sichuan was categorized as intra-provincial in the 1995 bi-census but as interprovincial in the 2000 census. Combining Chongqing with Sichuan, the interprovincial migration rate in 2000 would be 2.86%, still more than tripled the rate in 1995.

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